significant for COL. **CONCLUSIONS:** Detailed costing of such procedures provide useful estimates of health resource use which can be applied in economic evaluations of CRC screening.

PCN20

COSTS OF THE DIFFERENT TREATMENTS FOR PATIENTS WITH BREAST CANCER IN THE MEXICAN INSTITUTE OF SOCIAL SECURITY (IMSS)

Salinas-Escudero G[1], Mould J[1], Duran-Arenas L[1], Martinez-Valverde S[2], Garduño-Espinosa J[1]
[1]Social Security Mexican Institute, Mexico City, Mexico, [2]Social Security Research Unit, Mexico City, Mexico

In Mexico, breast cancer is the second most frequent cancer in oncology patients so high quality healthcare services and an efficient resource use is a priority. Currently, Mexican costs of different oncology treatments are general and incomplete. **OBJECTIVES:** To estimate in detail multiple breast cancer treatments costs in two oncology hospitals in the Mexican Institute of Social Security in Mexico City. **METHODS:** A case type model was constructed to identify resource use with the aid of expert opinion in radiotherapy, surgical, and chemotherapy services in two high speciality oncology hospitals ("Centro Médico Nacional La Raza" and "Centro Médico Nacional Siglo XXI"), during the last six-months of 2005. The total costs of each treatment was established with the case-mix technique and the research perspective was that of the health care payer's. Direct costs include: drugs, health staff wages, instrumental and medical equipment, laboratory and gabinet exams, and other resources for medical services. Indirect costs include: energy, water, gas, infraestructure, administrative costs, and others significant overheads. **RESULTS:** The costs estimation for surgery procedures were: Lumpectomy US$1075 and Mastectomy US$3291.80. In radiotherapy services tangential fields (TF) had a mean cost per intervention of US$849.90 and a breast complete cycle (BCC) was estimated in US$1284.10. Chemotherapy treatments showed different mean costs: CMF (6 cycles) US$624.90; FEC (4 cycles) US$1682.50; FEC (6–8 cycles) US$2847.30; Navelbine (6 cycles) US$3583.80, CarboGem (6 cycles) US$5374.70; Capacitabine (6 cycles) US$6279.60; Epirubicina + Taxotere (4 cycles) US$11,607.30, and Trastuzumab US$16,572. **CONCLUSIONS:** Total costs of treatment per patient with breast cancer was estimated in Mexico (one surgical, radiotherapy and chemotherapy procedure was always included). The cheapeast treatment scenario included: lumpectomy, TF and CMF with a cost of US$2264.20 and the highest cost scenario was found using rebuilding surgery, BCC and Trastuzumab with a cost of US$20,477.10.

CANCER—Health Care Use & Policy Studies

PCN21

4D LOCALIZATION SYSTEM WITH TRANSPONDERS FOR CONTINUOUS TARGET LOCALIZATION FOR SET-UP AND TRACKING DURING RADIATION THERAPY: EARLY HEALTH TECHNOLOGY ASSESSMENT

Williams E[1], Papatheofanis FJ[2]
[1]AEQUITAS, San Diego, CA, USA, [2]UCSD, San Diego, CA, USA

OBJECTIVES: Three-dimensional conformal radiotherapy and intensity-modulated radiotherapy permit more accurate conforming of treatment beams to the shape of target organs; other sources of geometric variations, such as patient movement, positioning uncertainties, and organ motion, can result in complications due to irradiation of normal tissues. This assessment evaluated the evidence on the Calypso® 4D Localization System ("System"). This is a real-time three-dimensional target tracking system that was developed to aid in tumor target localization during radiation therapy. It utilizes implanted wireless transponders that respond to an AC activation wave with a low-energy radio-frequency return signal that can be used to obtain real-time positional information of the target organ. **METHODS:** The MEDLINE® database and Cochrane Library were searched for all articles published during the period commencing January 1995 through October 2005 using subject headings and terms. A total of nine abstracts reporting limited data on the mechanism and accuracy of the System were presented at the 2004 and 2005 annual meetings of the ASTRO. Comparators included electronic portal imaging devices (EPID); CT, including standard CT and CT-on-rails; ultrasound, including B-mode Acquisition and Targeting (BAT®); and X-ray, including the CyberKnife®. **RESULTS:** Initial clinical results indicated eleven of 20 evaluable patients were localized and tracked with the System; compared to standard radiographic x-rays, localization and tracking by the System demonstrated a mean 3D difference of 1.5 mm (SD 0.9). Two of 11 (18%) patients exhibited significant organ motion exceeding 5 mm over an eight-minute tracking period with the excursions persisting over one minute. Preliminary data were available for five patients (193 fractions) from a second cohort which confirmed early findings. PROM also indicated patient preference for the System. **CONCLUSION:** 4D tracking and localization improves target organ irradiation in comparison to existing technologies because by improved detection of organ motion in real time.

PCN22

THE EFFECT OF EFFICIENCY OF ACCESS TO CARE

Younis M[1], Peters D[2]
[1]Tulane, New Orleans, LA, USA, [2]Institut for Experimental Genetics Ingolstaedter Landstr. 1, Neuherberg, Germany

OBJECTIVE: The issue of efficiency in providing treatment is a critical in the current environment of escalating cost of medical care and rising number of uninsured and underinsured. Improving efficiency would give a room for charity and uncompensated care for the indigent population. To describe any variation in the efficiency of profit and non-profit Cancer Centers. These centers usually are associated with a national or local hospital chain, Policy implications due to these variations would be in form of the level of service and access for the community and indigent populations. **METHODS:** Unit of analysis: Cancer Centers (CC). Cross-sectional study for the year, 1995 Dependent variables: Full-time Equivalent Employee Regression analysis and descriptive statistics will be used in this study. **RESULTS:** For-Profit Cancer Center showed more cost cutting and efficient way to operate than Non-Profit centers. The most efficient centers were located in the Western region of the country followed by Northeast, the Midwestern and region and the southern region of United States. Cancer centers with average number of beds equal or below 50 beds were the most efficient in terms of minimizing cost. This indicates that Cancer centers suffer from diseconomy of scale. **CONCLUSIONS:** The importance of the study stems from the debate over the effect of the healthcare cost on access to healthcare. If efficiency is not used to improve the cost of treatment, and the services provided by the Cancer Center, then society might be better off by having a single payer system to pressure for more efficiency and less disparity in the healthcare system. This study must be taken with a grain of salt due it limitations and shortcoming.